



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/053,182	01/16/2002	Mano Shaarpour	HALB:031	2848

7590 01/21/2004

Karen B. Tripp
Attorney at Law
P.O. Box 1301
Houston, TX 77251-1301

EXAMINER

KRECK, JOHN J

ART UNIT	PAPER NUMBER
----------	--------------

3673

DATE MAILED: 01/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/053,182

Applicant(s)

SHAARPOUR, MANO

Examiner

John Kreck

Art Unit

3673

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 1-13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of claims 14-24 in Paper No. 5 is acknowledged.
2. Claims 1-13 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 5.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 14 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Green, et al. (U.S. Patent number 4,473,480).

Green teaches a method of preventing or alleviating lost circulation including treating a wellbore with a material comprising a blend of carbon based material (identified as "b" in the abstract, described on col. 5, line 46) and a water swellable, but not soluble polymer ("c", described on col. 4, line 40) as called for in claim 14.

Green also teaches the method of preventing or alleviating lost circulation including adding to drilling fluid an additive comprising a blend of carbon based material (identified as "b" in the abstract, described on col. 5, line 46) and a water swellable, but

Art Unit: 3673

not soluble polymer ("c", described on col. 4, line 40); circulating the fluid; and allowing the additive to enter a lost circulation zone as called for in claim 15.

4. Claims 14, 15, and 17 are rejected under 35 U.S.C. 102(a) as being anticipated by the admitted prior art identified in paragraph 4 of the instant application. The disclosed use of slurry including carbon based material (mineral oil) and polymer (polyacrylamide) anticipates claims 14, 15, and 17.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 14-19, 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zaleski, et al. (U.S. Patent number 5,826,669) in view of Diamond Seal TM.

Zaleski teaches the treating a wellbore with a fluid including a carbon based material to prevent or alleviate lost circulation. Zaleski fails to teach the polymer.

Diamond Seal TM is a water swellable but not water soluble crystalline synthetic polymer, disclosed as useful in preventing lost circulation. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the Zaleski process to have included a water swellable but not water soluble crystalline synthetic polymer as called for in claim 14. It is prima facie obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to

Art Unit: 3673

form a third composition to be used for the very same purpose.... [T]he idea of combining them flows logically from their having been individually taught in the prior art.” In re Kerkhoven, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980).

Regarding independent claim 15:

Zaleski teaches the adding a fluid including a carbon based additive; circulating; and allowing the additive to enter a lost circulation zone. Zaleski fails to teach the polymer.

Diamond Seal™ is a water swellable but not water soluble crystalline synthetic polymer, disclosed as useful in preventing lost circulation. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the Zaleski process to have included a water swellable but not water soluble crystalline synthetic polymer as called for in claim 15. It is prima facie obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose.... [T]he idea of combining them flows logically from their having been individually taught in the prior art.” In re Kerkhoven, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980).

Zaleski teaches the graphite and ungraphitized particles as called for in claim 16.

DiamondSeal™ includes polyacrylamide as called for in claim 17.

Regarding independent claim 18:

Art Unit: 3673

Zaleski teaches the introducing a composition including a resilient carbon based material having graphite and ungraphitized particles; and allowing the additive to enter a lost circulation zone. Zaleski fails to teach the polymer.

Diamond Seal™ is a water swellable but not water soluble crystalline polyacrylamide polymer, disclosed as useful in preventing lost circulation. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the Zaleski process to have included a water swellable but not water soluble crystalline polyacrylamide polymer as called for in claim 18. It is prima facie obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose.... [T]he idea of combining them flows logically from their having been individually taught in the prior art." In re Kerkhoven, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980).

Regarding claim 19; although the Diamond Seal™ document fails to disclose the crosslinked polymer, the polyacrylamide sold as Diamond Seal™ is crosslinked.

With regards to claim 21; Official Notice is taken that the use of weighting material is well-known and near universal in drilling fluids, in order to achieve proper density. It would have been obvious to one of ordinary skill in the art at the time of the invention to have further modified the zaleski process to have included weighting material as called for in claim 21, in order to achieve proper density.

With regards to claim 22; it would have been obvious to one of ordinary skill in the art at the time of the invention to have further modified the Zaleski process to have

Art Unit: 3673

the ratio of carbon based material to polymer about 90:10; through routine experimentation. It is also noted that Zaleski teaches about 10, 20, or 30 lb/bbl (col. 6, line 44) and Diamond Seal TM teaches about 1-2 lb/bbl (2-4 lb/100gal is approximately 1-2 lb/bbl). Addition of 10-30 lb carbon based material and 1-2 lb polymer, would have a range of between approximately 300:10 and 50:10; which fully encompasses the claimed 90:10.

With regards to claim 23; Zaleski fails to disclose whether the process is used in a vertical or horizontal or directional well. Lost circulation is known to occur in horizontal or directional wells (as taught by the DiamondSealTM reference). It would have been obvious to one of ordinary skill in the art at the time of the invention to have practiced the Zaleski process (as modified) in a horizontal or directional well, in order to treat lost circulation in such a well.

With regards to claim 24; Zaleski fails to teach the temperature of the well. Official Notice is taken that wells often have temperature of less than 200°F; and that such wells can experience lost circulation. It would have been obvious to one of ordinary skill in the art at the time of the invention to have practiced the Zaleski process (as modified) in a well with a temperature less than 200°F, in order to treat lost circulation in such a well.

6. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zaleski and DiamondSealTM as applied to claim 18 above, and further in view of Christman (U.S. Patent number 3,633,689).

Zaleski and DiamondSealTM fail to teach the alcohol.

Christman teaches the use of alcohol in drilling fluid, to prevent freezing in cold climates. It would have been obvious to one of ordinary skill in the art at the time of the invention to have further modified the Zaleski process to have included alcohol, in order to prevent freezing.

7. It is noted that applicant has asserted that the combinations disclosed in table I reflect a "surprising synergy". Insofar as that table may be relied upon as evidence to rebut the prima facie case of obviousness; it is noted that the table lacks sufficient data to fully evaluate any assertion of unexpected results (e.g. no control values without either Diamondseal™ or Steelseal™; no test at claimed ratio 90:10, etc..) and there is no evidence that any synergistic effect is greater than what would have been expected.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Kreck whose telephone number is (703)308-2725. The examiner can normally be reached on M-F 5:30 am - 2:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Shackelford can be reached on (703)308-2978. The fax phone number for the organization where this application or proceeding is assigned is (703)872-9326.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)306-4177.



John Kreck
Examiner
Art Unit 3673

JJK